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## EDUCATIONAL HISTORY

Ph.D. Biology, Dalhousie University (2006)

Dissertation entitled “Algal diets and nutritional requirements during early life-history of the scallops, *Placopecten magellanicus* and *Argopecten irradians*.”

M.Sc. Oceanography, University of Connecticut (2001)

Thesis entitled “The influence of diet on pre-ingestive particle handling in two species of bivalved molluscs: *Mytilus edulis* and *Crassostrea virginica*.”

B.Sc. Honors, Biology, Summa Cum Laude, Salisbury State University (1997)

Thesis entitled “Predation by two species of mud crabs on oyster bar invertebrates in the Chesapeake Bay.”

B.Sc. Environmental/Marine Science, University of Maryland Eastern Shore (1997)

## PROFESSIONAL HISTORY

January 2005- present: Research Fishery Biologist; NOAA Fisheries Service, Northeast Fisheries Science Center, Milford CT.

March 2001- December 2004: Guest Worker, National Research Council of Canada, Institute for Marine Biosciences. *Advisor: Dr. V. Monica Bricelj.*

January 1998-February 2001: Research Assistant, University of Connecticut, Department of Marine Science. *Advisor: Dr. J. Evan Ward.*

June – August 1997: Research Intern, National Science Foundation, Research Experience for Undergraduates, Salisbury State University. *Advisor: Dr. J. Evan Ward.*

June – August 1996: Research Intern, National Science Foundation, Research Experience for Undergraduates at Horn Point Environmental Laboratory. *Advisor: Dr. Victor Kennedy.*

## AWARDS

Recipient of the Castagna Award for Applied Research through the National Shellfisheries Association, 2003.

Recipient of the Industry Partnership Award for best poster presentation, AquaNet II General Meeting, Moncton, New Brunswick, 2002.

Received Best Student Poster Award at the National Shellfisheries Association Meeting, 1998.

Biology Student of the Year, Salisbury State University, 1997-98.

Awarded Presidential Scholarship from Salisbury State University. Award based on academic achievement and leadership ability.

Henson Scholarship recipient from the Richard A. Henson School of Science and Technology at Salisbury State University.

Beta Beta Beta national biological honorary society.

Phi Kappa Phi national honorary society.

## PUBLICATIONS

### Peer-reviewed

**Milke, L.M.**, V.M. Bricelj, N.W. Ross (2012). Changes in enzymatic activity during early development of bay scallops *Argopecten irradians* and sea scallops *Placopecten magellanicus*. *Aquat Biol*, 2: 207-216.

Parrish, C.C., **L.M. Milke**, V.M. Bricelj (2011). Characterisation of 4 $\alpha$ -methyl sterols in *Pavlova* spp. and postlarval sea scallops, *Placopecten magellanicus*. *Aquaculture*, 311: 261-262.

**Milke, L.M.**, V.M. Bricelj and C.C. Parrish (2008). Three *Pavlova* spp. in unialgal and mixed diets with *Chaetoceros muelleri* for postlarval sea scallops, *Placopecten magellanicus*. *Aquaculture*, 276: 130-142.

**Milke, L.M.**, V.M. Bricelj and C.C. Parrish (2006). Comparison of early life stages of the bay scallop, *Argopecten irradians*: effects of microalgal diets on scallop growth and biochemical composition. *Aquaculture*, 260: 272-289.

**Milke, L.M.**, V.M. Bricelj and C.C. Parrish (2004). Growth of postlarval sea scallops, *Placopecten magellanicus*, on microalgal diets, with emphasis on the nutritional role of lipids and fatty acids. *Aquaculture*, 234(1-4): 293-317.

**Milke, L.M.** and J. E. Ward (2003). Influence of diet on pre-ingestive particle processing in bivalves. II: Pallial cavity residence times and particle handling on the labial palps. *J. Exp. Mar. Biol. Ecol.* 293: 151-172.

**Milke, L.M.** and V.S. Kennedy (2001). Mud crabs (Xanthidae) in Chesapeake Bay: Claw characteristics and predation on epifaunal bivalves. *Inverteb. Biol.* 120(1): 67-77.

## **Abstracts**

Demko, A. and **L.M. Milke** (2012) Effect of diet on digestive enzymes in larval eastern oysters, *Crassostrea virginica*. *J. Shellfish Res.* 31(1):213.

Demko, A. and **L.M. Milke** (2012) Impact of diet on digestive enzyme activity in larval eastern oysters, *Crassostrea virginica*. *J. Shellfish Res.* 31(1):275.

Widman, J.C., **L. Milke**, A. Cohen, D.C. McCorkle (2012). Effects of elevated pCO<sub>2</sub> on atlantic surfclam, *Spisula solidissima*, larvae. *J. Shellfish Res.* 31(1):360.

**Milke, L.M.**, Bricelj V.M. and C.C. Parrish (2011) Dietary phytosterols and postlarval scallops: not all sterols are treated equally. *J. Shellfish Res.* 30(2):533.

Croxton, A.N., J.H. Alix, Y. Li, M.S. Dixon, K. Rivara, **L. Milke**, G.H. Wikfors (2010). A preliminary trial of the use of adult surrogates to determine hemocyte-immune status of oyster seed in a FLUPSY-based nursery. *J. Shellfish Res.* 29(2):548.

Dixon, M.S., G.H. Wikfors, K. Rivara, Y. Li, S.L. Meseck, J.M. Rose, A.N. Croxton, **L. Milke** and B.C. Smith (2010). FLUPSY observations and measurements, an update: Quantifying interactions with the local environment. *J. Shellfish Res.* 29(2):548.

**Milke, L.M.**, D.J. Veilleux, M.S. Dixon and V. M. Bricelj (2009) The role of digestive enzymes during early development in the bay scallop, *Argopecten irradians*. *J. Shellfish Res.* 28(3):654.

**Milke, L.**, S. Meseck, and G.H. Wikfors (2008) Development of an enzyme-linked immunosorbent assay (ELISA) for the detection of cortisol in bivalve mollusks. *J. Shellfish Res.* 27(4): 957.

**Milke, L.M.**, V.M. Bricelj and N.W. Ross (2007) Ontogenetic changes in the enzymatic activity of bay scallops, *Argopecten irradians*, and sea scallops, *Placopecten magellanicus*. *J. Shellfish Res.* 26(4):1326.

Meseck, S L ; Widman, JC Jr; **Milke, L.M.**; Sennefelder, G; Dixon; Kapareiko, D; Veilleux, D J (2006) Changes in feeding and excretion rates of bay scallops, *Argopecten irradians*, when exposed to elevated levels of ammonia in a closed system. J. Shellfish Res. 25(2):668.

Hunsperger, H., J. Widman, **L. Milke**, S.L. Meseck, D. Veilleux, M.S. Dixon and G.H. Wikfors (2006). Dietary arachidonic acid supplementation in bay scallops, *Argopecten irradians*, during early development. J. Shellfish Res. 26(2):660.

**Milke, L.M.**, V.M. Bricelj and N.W. Ross (2006) Changes in enzymatic activity during early development of bay and sea scallops, *Argopecten irradians* and *Placopecten magellanicus*. J. Shellfish Res. 25(2):669.

**Milke, L.M.**, V.M. Bricelj and N.W. Ross (2006) Digestive enzyme activity over ontogeny in bay scallops, *Argopecten irradians* and sea scallops, *Placopecten magellanicus*. J. Shellfish Res. 25(2):755.

Meseck, S.L., J.C. Widman, **L.M. Milke**, G. Sennefelder, M.S. Dixon, D. Kapareiko and D.J. Veilleux (2006). Changes in feeding and excretion rates of bay scallops, *Argopecten irradians*, when exposed to elevated levels of ammonia in a closed system. J. Shellfish Res. 25(2): 668.

**Milke, L.M.**, V.M. Bricelj and C.C. Parrish (2005) In search of a superior diet for post-settlement bay and sea scallops (*Argopecten irradians* and *Placopecten magellanicus*): How do diets containing different *Pavlova* spp. stack up? J. Shellfish Res. 24(4):1267

**Milke, L.M.**, V.M. Bricelj and C.C. Parrish (2004) Effects of microalgal diets and fatty acid composition on the growth performance of postlarval and juvenile bay scallops *Argopecten irradians*. J. Shellfish Res.

**Milke, L.M.**, V.M. Bricelj and C.C. Parrish (2002). A comparison of microalgal diets for enhanced production of *Placopecten magellanicus* postlarvae. J. Shellfish Res. 21(1): 402.

**Milke, L.M.** and J. E. Ward (2000). Pallial cavity residence time in two species of bivalved molluscs: *Mytilus edulis* and *Crassostrea virginica*. J. Shellfish Res. 19(1): 603.

McKee, M.P., J.E. Ward, **L.M. Milke**, and B.A. MacDonald (2000). Release of mucopolysaccharides by bivalved molluscs and their contribution to the production of transparent exopolymer particles (TEP) in nearshore waters. J. Shellfish Res. 19(1): 664.

**Milke, L.M.**, J.E. Ward, and S.E. Shumway (1999). Effects of food quality on the particle handling time in bivalves. J. Shellfish Res. 18(1): 331-332.

Ward, J.E., J.S. Levinton, S.E. Shumway, and **L.M. Milke** (1999). Mediation of feeding and selection by secondary metabolites of detrital particles. J. Shellfish Res. 18(1): 301.

**Milke, L.M.**, J.E. Ward, S.E. Shumway, and J.S. Levinton (1998). Modeling the feeding processes in bivalves: In vivo studies of particle transport rates on the ctenidium (=gill) J. Shellfish Res. 17(1): 334.

## PRESENTATIONS

### Invited Presentations

Invited speaker for the Howard Laboratory Seminar Series, Sandy Hook, NJ; July 2010.  
'Microalgal diets, fatty acid composition, growth and stress response of bivalved mollusks.'

Invited speaker for the UCONN Department of Marine Science Seminar Series, Groton, CT; October 2007. 'Effects of microalgal diets and fatty acid composition on growth and stress response of bivalved molluscs.'

Invited panelist for the Career Development Symposium for Undergraduates held at the Woods Hole Oceanographic Institution, Woods Hole, MA, August 2005.

Invited speaker for the Biological Oceanography Seminar Series, Department of Oceanography, Dalhousie University; 2002. 'The influence of diet on pre-ingestive particle handling in two species of bivalved molluscs: *Crassostrea virginica* and *Mytilus edulis*.'

### Presentations at Professional Meetings

Widman, J.C., **L.M. Milke**, A. Cohen and D.C. McCorkle (2013). Effects of elevated pCO<sub>2</sub> on the shell length of larval Atlantic surfclam, *Spisula solidissima*. World Aquaculture Society Annual Meeting, Nashville TN.

**Milke, L.M.**, Bricelj V.M. and C.C. Parrish (2011) Dietary phytosterols and postlarval scallops: not all sterols are treated equally. National Shellfisheries Association Meeting, Baltimore MD.

**Milke, L.**, D. Veilleux, M. Dixon and V. M. Bricelj (2009) The role of digestive enzymes during early development in the bay scallop, *Argopecten irradians*. 29<sup>th</sup> Milford Aquaculture Seminar, Meriden, CT.

**Milke, L.**, S. Meseck, and G.H. Wikfors (2008) Development of an enzyme-linked immunosorbent assay (ELISA) for the detection of cortisol in bivalve mollusks. 28th Milford Aquaculture Seminar, Meriden, CT.

**Milke, L.M.**, V.M. Bricelj and N.W. Ross (2007). Changes in enzymatic activity during early development of bay and sea scallops, *Argopecten irradians* and *Placopecten magellanicus*. International Pectinid Workshop, Halifax, NS, Canada.

**Milke, L.M.**, S. Meseck and G.H. Wikfors (2007). Method development of cortisol (ELISA) for bivalves. World Aquaculture Society Meeting, San Antonio, TX.

**Milke, L.M.**, V.M. Bricelj and N.W. Ross (2006). Digestive enzyme activity over ontogeny in bay scallops, *Argopecten irradians*, and sea scallops, *Placopecten magellanicus*. National Shellfisheries Association Meeting, Monterey, CA.

**Milke, L.M.,** V.M. Bricelj and N.W. Ross (2006). Changes in enzymatic activity during early development of bay and sea scallops, *Argopecten irradians* and *Placopecten magellanicus*. 26<sup>th</sup> Milford Aquaculture Seminar, New Haven, CT.

**Milke, L.M.,** V.M. Bricelj and C.C. Parrish (2005). In search of a superior diet for post-settlement bay and sea scallops (*Argopecten irradians* and *Placopecten magellanicus*): How do diet containing different *Pavlova* spp. stack up? 25<sup>th</sup> Milford Aquaculture Seminar, New Haven, CT.

**Milke, L.M.,** V.M. Bricelj and C. C. Parrish (2004). Effects of microalgal diets and fatty acid composition on the growth performance of postlarval and juvenile bay scallops *Argopecten irradians*. World Aquaculture Society Meeting, Honolulu Hawaii.

Bricelj, V.M., **L.M. Milke,** and C.C. Parrish (2003). Identification of a superior microalgal diet for post-settlement scallops *Argopecten irradians* and *Placopecten magellanicus*. World Aquaculture Society Meeting, Brazil. (presentation given by V.M. Bricelj)

**Milke, L.M.,** V.M. Bricelj, and C.C. Parrish (2002). Comparative performance of postlarval *Placopecten magellanicus* and *Argopecten irradians* on microalgal diets: Identification of a superior scallop diet. Aquaculture Canada Annual Meeting, Charlottetown, PEI.

**Milke, L.M.,** V.M. Bricelj, and C.C. Parrish (2002). Identification of a superior diet for post-settlement scallops *Placopecten magellanicus* and *Argopecten irradians*? AquaNet II General Meeting, Moncton, NB. (poster)

Copeman, L., C. Parrish, **L. Milke** and M. Bricelj (2002). Sterol composition of bivalves and cultured microalgae implications for diet selection. AquaNet II General Meeting, Moncton, NB. (poster)

**Milke, L.M.,** V.M. Bricelj, and C.C. Parrish (2002). A comparison of microalgal diets for enhanced production of *Placopecten magellanicus* postlarvae. National Shellfisheries Association Meeting, Mystic, CT.

**Milke, L.M.,** V.M. Bricelj, and C.C. Parrish (2001). A comparison of microalgal diets for enhanced production of *Placopecten magellanicus* postlarvae. AquaNet I General Meeting, Halifax, NS. (poster)

**Milke, L.M.** and J.E. Ward (2001). Influence of diet on pre-ingestive particle handling in *Crassostrea virginica* and *Mytilus edulis*. Benthic Ecology Meeting, Durham, NH. (presentation given by J.E. Ward)

**Milke, L.M.** and J.E. Ward (2000). Pallial cavity residence time in two species of bivalved molluscs: *Mytilus edulis* and *Crassostrea virginica*. National Shellfisheries Association Meeting, Seattle, WA.

McKee, M.P., J.E. Ward, **L.M. Milke** and B.A. MacDonald (2000). Release of mucopolysaccharides by bivalved molluscs and their contribution to the production of transparent exopolymer particles (TEP) in nearshore waters. National Shellfisheries Association Meeting, Seattle, WA. (poster)

**Milke, L.M.**, J. E. Ward and J.S. Levinton (1999). Effects of food quality on particle handling in bivalves. Benthic Ecology Meeting, Baton Rouge, LA. (poster)

**Milke, L.M.**, J.E. Ward, and S.E. Shumway (1999). Effects of food quality on the particle handling time in bivalves. National Shellfisheries Association Meeting, Halifax, NS. (poster)

**Milke, L.M.**, J.E. Ward, S.E. Shumway and J.S. Levinton (1998). Modeling the feeding processes in bivalves: In vivo studies of particle transport rates on the ctenidium (=gill) National Shellfisheries Association Meeting, Las Vegas, NV. (poster)

## **PROFESSIONAL AFFILIATIONS/ACTIVITIES/SERVICE**

Co-chair of the Student Endowment Committee of the National Shellfisheries Association, 2011-present.

Invited member of the Research Subcommittee for the Governor's Council for Agricultural Development for the State of Connecticut, 2012-present.

Chair of the 'Contributed Finfish and Shellfish Aquaculture II' session, Joint meeting of the Northeast Aquaculture Conference and Exposition, Milford Aquaculture Seminar and International Conference of Shellfish Restoration, Groton, Connecticut, 2012.

Chair of the 'Nutrition' session at the National Shellfisheries Association meeting in Baltimore, MD. March, 2011.

Invited Participant in the Agriculture Workgroup for the Adaptation Subcommittee to the Governor's Steering Committee on Climate Change for the State of Connecticut, 2009-2010.

Organizer of the 'Scallop Feeding and Nutrition' Session at the World Aquaculture Society Annual meeting, Honolulu, Hawaii, 2004.

Reviewer for Aquatic Living Resources, Aquaculture, Aquaculture Nutrition, Biochemical Systematics and Ecology, Journal of Experimental Marine Biology and Ecology, Journal of Shellfish Research.

## **AGENCY SERVICE**

Co-organizer of the Annual Milford Aquaculture Seminar, 2009-present.